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| (71) Applicant (for all designated States except US): UNIVERSITY OF FLORIDA TISSUE BANK, INC. [US/US]; 1 Innovation Drive, Alachua, FL 32615 (US). | | | | | |
| (72) Inventors; and | | Published | | | |
| (75) Inventors/Applicants (for US only): GROOMS, Jamie, M. [US/US]; 1 Innovation Drive, Alachua, FL 32615 (US). CARTER, Kevin, C. [US/US]; 1 Innovation Drive, Alachua, FL 32615 (US). SANDER, Tom [US/US]; 1 Innovation Drive, Alachua, FL 32615 (US). DULEBOHN, David, H. [US/US]; Suite 3, 2900 14th Street, Naples, FL 33940 (US). | | With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. | | | |
| (74) Agent: BENCEN, Gerard, H.; Gerard H. Bencen, P.A., 426 Anderson Court, Orlando, FL 32801 (US). | | | | | |
| (54) Title: CORTICAL BONE CERVICAL SMITH-ROBINSON FUSION IMPLANT | | | | | |
| (57) Abstract | | | | | |
| <p>An implant composed substantially of cortical bone is provided for use in cervical Smith-Robinson vertebral fusion procedures. The implant is derived from allograft or autograft cortical bone sources, is machined to form a symmetrically or asymmetrically shaped (e.g. a substantially 'D'-shaped) implant having a canal running therethrough according to methods of this invention, and inserted into the space between adjacent cervical vertebrae to provide support and induce fusion of the adjacent vertebrae. Osteogenic, osteoinductive or osteoconductive materials may be packed into the canal of the implant to expedite vertebral fusion and to allow autologous bony ingrowth.</p> | | | | | |
| <p>The technical drawings illustrate the implant in five stages of assembly:</p> <ul style="list-style-type: none"> View A: Shows the top surface of the implant with a central square opening (102), a side wall (104), and a base (103). Labels include 100, 101, 105, 106, 107, and 108. View B: Shows a side cross-section of the implant with a central canal (110) and a base (109). Labels include 106, 107, 111, and 109. View C: Shows a top-down view of the implant with a central square opening (115) and a base (108). Labels include 105 and 120. View D: Shows a side cross-section of the implant with a central canal (110), a base (111), and a base (108). Labels include 105, 115, 111, 110, 120, and 108. View E: Shows a side cross-section of the implant being inserted into a vertebral canal. Labels include 125, 121, 122, 123, 124, and 126. | | | | | |
| EXHIBIT C | | | | | |

INTERNATIONAL SEARCH REPORT

Internatinal Application No
PCT/US 98/17769

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61F2/44

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| X | US 4 950 296 A (MCINTYRE JONATHAN L) 21 August 1990 cited in the application see the whole document | 1 |
| A | --- | 8, 9, 13, 17, 26, 31, 32, 37, 41, 50, 53-55, 57, 58 |
| A | WO 97 25945 A (GRIVAS NICHOLAS E ;CARTER KEVIN (US); DULEBOHN DAVID (US); GROOMS) 24 July 1997 see the whole document --- | 1, 13, 17, 26, 31, 32, 37, 41, 50, 53-55, 57, 58 |
| | | -/- |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the international search report

18 December 1998

28/12/1998

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INTERNATIONAL SEARCH REPORT

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| Internat | al Application No |
| PCT/US 98/17769 | |

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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Internat'l Application No

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| Patent document cited in search report | Publication date | Patent family member(s) | | | Publication date |
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